

Date: Friday, 12/9/2005 11:45:49 AM
 User: Kim Johnston

Process Sheet

SPLIT

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: WEARPAD
Job Number	: 25184 -2	Part Number	: D33397
Estimate Number	: 11348	Drawing Number	: D3339 REV B
P.O. Number	:	Project Number	: N/A
This Issue	: 12/9/2005 S.O. No. : N/A	Drawing Revision	: B
Prsht Rev.	: NC	Material	: N/A
First Issue	: 12/9/2005 Type : PURCHASED PARTS	Due Date	: 12/30/2005
Previous Run	: N/A	Qty:	20 Um: Each
Written By	: See comment below		
Checked & Approved By	: See comment below		
Comment	: Est Rev:A New Issue 05-11-10 EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: Issue P/O: 00000267 05/12/12
 E-mail or Ship DXF file to vendor
 Laser cut flat pattern as per Dwg
 Possible supplier: Ind. Laser
 Material release note is required.

2.0	D33397F	Wearpad
-----	---------	---------



Comment: Qty.: 1.0000 U(s)/Unit Total: 20.0000 U(s)
 WEARPAD-FLAT

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

5.0	BRAKE NC	NC BRAKE
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Comment: NC BRAKE

1-Deburr if necceray



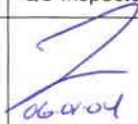
2-Form as per Dwg D3339 using DT8326 and DT8261

DL 05/12/130 20

06-01-04 19 PTO

SR 06/01/04 19

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
06-01-04	4	TOOK 1 Ser Template. Ident. Fiedas DT8828.		06-01-04	1		

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/01/06
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 12/9/2005 11:45:49 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPAD

Job Number: 25184

Part Number: D33397

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld Hard coat 7560 per Dwg D3339, use DT8210 & DT8810 Layout Jig

A/R

7560 Hardcoat

Batch:

M19174

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

9.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

477 72

12.0

DC

DOCUMENT CONTROL





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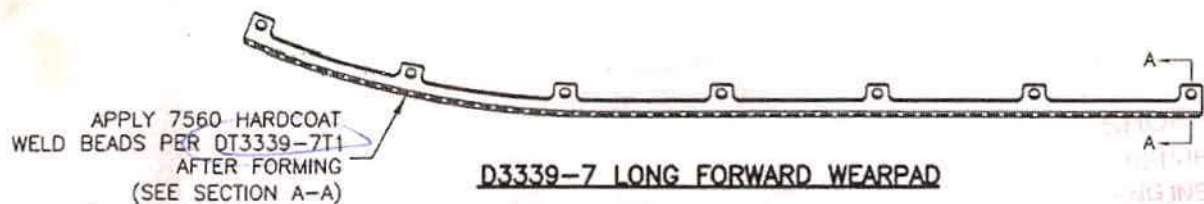
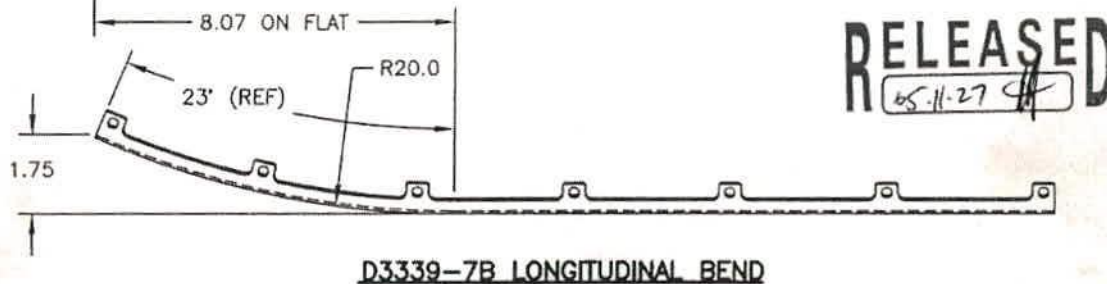
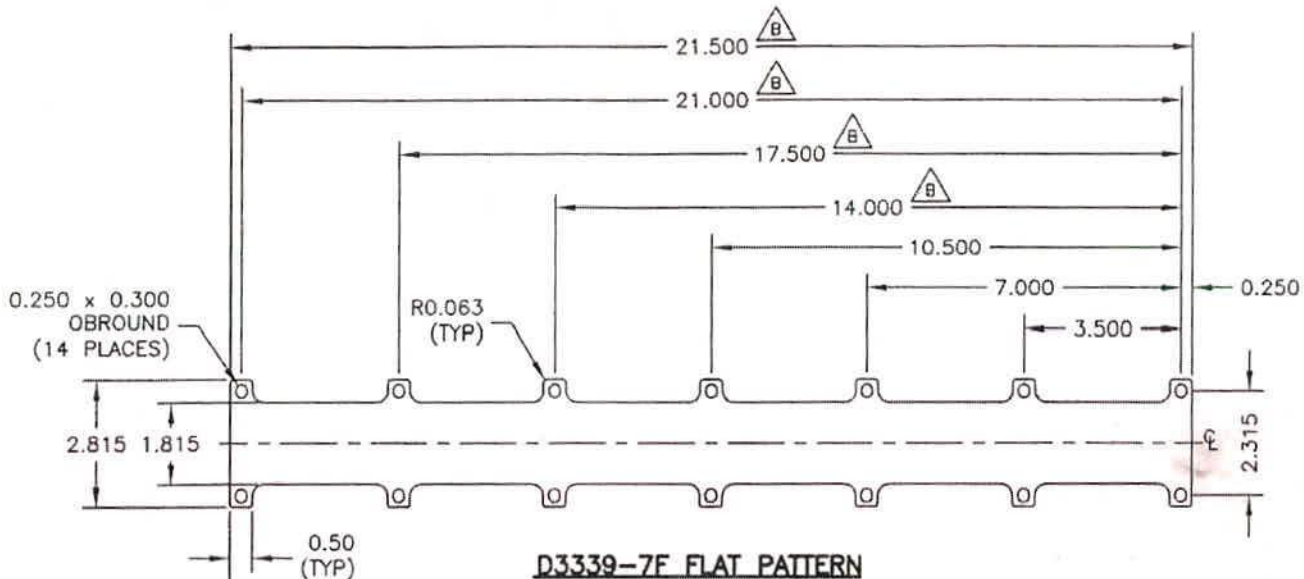
Inspection Level 21

Job Completion



DART

DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3339	REV. B SHEET 2 OF 3
DATE 05.11.22		TITLE REPLACEMENT WEARPAD	SCALE 1:4

**NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES COLD ROLLED STEEL 16 GAUGE (0.060 THICK)
- 2) PART IS SYMMETRICAL ABOUT CENTER LINE
- 3) WELD PER DART QSI 004
- 4) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP CORNERS 0.063 MAX

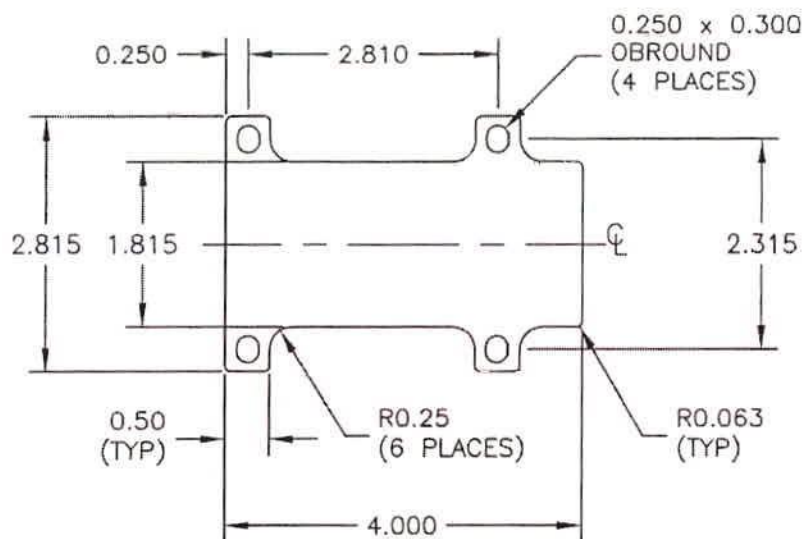
RELEASED
05.11.27

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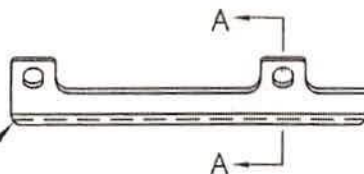
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DART

DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3339	REV. B SHEET 3 OF 3
DATE 05.11.22	TITLE REPLACEMENT WEARPAD		SCALE 1:2

**D3339-9F FLAT PATTERN****RELEASED**
05.11.22 #

APPLY 7560
HARDCOAT WELD BEADS
PER DT3339-9T1
AFTER FORMING
(SEE SECTION A-A)

**D3339-9 AFT WEARPAD****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES COLD ROLLED STEEL 16 GAUGE (0.060 THICK)
- 2) PART IS SYMETRICAL ABOUT CENTER LINE
- 3) WELD PER DART QSI 004
- 4) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP CORNERS 0.063 MAX

SHOT COPY
RETURN TO
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WORK ORDER
NO. 25184

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01/18/05 TUE 15:50 FAX 604 272 0951

INTEGRIS METALS

MTR MINNEAPOLIS

0010

YIH MAU CORP.

INSPECTION CERTIFICATE

9822915

DRIVER NO. :
COMMODITY :

FORGAS
PRIMER COAT ROLLED STAINLESS STEEL SHEET AISI 304ND/4 (SI)
FINISH WITH 100 MICRONS ON MAIN SIDE, WITH BLACK PASS
SLITTED EXTER AISI 304ZB FINISH WITH PAPER INTERLEAVED,
SLITTED EDGE.

工廠: 臺灣基隆市 瑞芳 瑞興
345 SHAN AN RD. SU CHU HSANG
KAO HSUNG TAIN/AN R.O.C.
TEL: 07-2672335 FAX: 07-2672005
CERTIFICATE NO: 9811182
DATE OF ISSUE: 1/24/2004

SPECIFICATION:

INTERGRIS METALS LTD

ID NO.

Physical Properties

Chemical Composition

ITEM NO	NO.	Weight (N.W.)		Heat No.	ID NO.	Physical Properties					Chemical Composition (%)							
		KGS	LBS			Y.S.	T.S.	EL.	HB	HV	C	SI	Mn	P	S	N	O	N
AISI 304ZB																		
7425-4228	1	1.465	3.230	YU231320	3AS44463B-21	258	665	56	81	166	4.8	61	119	24	2	804	1821	2.7
24GA467120*	1	1.464	3.228	YU231320	3AS44463B-22	268	665	56	81	156	4.8	51	119	24	2	804	1821	2.7
7425-5860	1	1.464	3.228	YU230510	38637608B-51	280	673	53	82	162	5.4	50	125	25	3	815	1819	2.4
22GA467120*	1	1.375	3.031	YU230510	38637608B-52	280	673	53	82	162	5.4	50	125	25	3	815	1819	2.4
7425-5860	1	1.445	3.186	YU134975	3AS43434A-1	312	666	51	82	161	4.1	49	112	24	2	809	1821	2.8
7425-5860	1	1.437	3.100	YU231066	3AS42732-4	301	664	49	84	166	3.7	40	118	27	5	810	1824	3.7
7425-5860	1	1.453	3.203	YU231066	3AS42732-5	301	664	49	84	166	3.7	40	118	27	5	810	1824	3.7
7425-5860	1	1.455	3.208	YU231066	3AS42732-6	301	664	49	84	166	3.7	40	118	27	5	810	1824	3.7
7425-5860	1	1.423	3.137	YU231143	3AS42886A-6	302	660	53	82	159	4.5	52	123	28	4	810	1822	2.7
7425-5860	1	1.424	3.139	YU231143	3AS42886A-7	302	660	53	82	159	4.5	52	123	28	4	810	1822	2.7
7425-5860	1	1.420	3.131	YU231143	3AS42886B-1	302	660	53	82	159	4.5	52	123	28	4	810	1822	2.7
7425-5860	1	1.441	3.177	YU231075	3AS42817A-1	302	660	52	83	162	4.2	48	119	28	6	806	1813	3.4
7425-5860	1	1.441	3.177	YU231075	3AS42817A-2	302	660	52	83	162	4.2	48	119	28	6	806	1813	3.4
7425-5860	1	1.420	3.131	YU231075	3AS42817A-3	302	660	52	83	162	4.2	48	119	28	6	806	1813	3.4
7425-5860	1	1.420	3.131	YU231075	3AS42817A-4	302	660	52	83	162	4.2	48	119	28	6	806	1813	3.4
7425-5860	1	1.446	3.188	YU135202	3AS45523A-211	301	641	53	81	157	5.1	51	114	30	9	805	1822	3
7425-5860	1	1.405	3.097	YU135202	3AS45523A-212	301	641	53	81	157	5.1	51	114	30	9	805	1822	3
7425-5860	1	1.540	3.395	YU135202	3AS45523A-214	301	641	53	81	157	5.1	51	114	30	9	805	1822	3

Remarks:

NO REMARKS CONTAMINATION

Bridal designed for all Heat NO.

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS
BEEN MADE IN ACCORDANCE WITH THE RULES OF THE IAL CERTIFICATE.

PRODUCT IN ACCORDANCE WITH ASTM A240, A480,
A302, A304, A304L, A307, A308, A309, A310, A312, A314, A315, A316, A316L, A321, A321L, A321X, A321X2, A321X3, A321X4, A321X5, A321X6, A321X7, A321X8, A321X9, A321X10, A321X11, A321X12, A321X13, A321X14, A321X15, A321X16, A321X17, A321X18, A321X19, A321X20, A321X21, A321X22, A321X23, A321X24, A321X25, A321X26, A321X27, A321X28, A321X29, A321X30, A321X31, A321X32, A321X33, A321X34, A321X35, A321X36, A321X37, A321X38, A321X39, A321X40, A321X41, A321X42, A321X43, A321X44, A321X45, A321X46, A321X47, A321X48, A321X49, A321X50, A321X51, A321X52, A321X53, A321X54, A321X55, A321X56, A321X57, A321X58, A321X59, A321X60, A321X61, A321X62, A321X63, A321X64, A321X65, A321X66, A321X67, A321X68, A321X69, A321X70, A321X71, A321X72, A321X73, A321X74, A321X75, A321X76, A321X77, A321X78, A321X79, A321X80, A321X81, A321X82, A321X83, A321X84, A321X85, A321X86, A321X87, A321X88, A321X89, A321X90, A321X91, A321X92, A321X93, A321X94, A321X95, A321X96, A321X97, A321X98, A321X99, A321X100.

YIH MAU CORP.

Manager of Quality Assurance

2094 304 4455

(0.037)

) 90 267 196



New Zealand Steel Limited
Glenbrook, South Auckland
Postal: Private Bag 92121, Auckland, New Zealand
Telephones: (09) 375 8999 / 375 8111 Auckland
(09) 235 8069 / 235 3535 Waikuku
Fax: (09) 375 8050

TEST CERTIFICATE

Ref: 521022495

CUSTOMER	Wilkinson	P50323 DI001	SPECIFICATION	ASTMA1008 CS Type A	CERTIFICATE No	TC112397
CUSTOMER O/N	90-21N-686		PRODUCT	CRA WIDE COIL	PAGE	1 of 1
MILL O/N	480737		DIMENSIONS	0.055" x 48" x Coil	DATE	09 June 2005

PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT																MECHANICAL TESTS (TEST SPECIFICATION - ASTM A370)						
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ()	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH
		x100			x1000										x10000		x100	180°			G.L.=	HRB	()	(feet)
R9-459713-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				54		1585
R9-459714-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				54		1457
R9-459715-00	641513	5	TR	18	9	18	12	17	15	1	6	1	1					Good				48		1375
R9-459716-00	641513	5	TR	18	9	18	12	17	15	1	6	1	1					Good				48		1473
R9-459717-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				48		1631
R9-459718-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				48		1093
R9-459719-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				50		1562
R9-459720-00	641756	5	TR	20	12	19	12	18	19	1	7	1	1					Good				50		1535
R9-460380-00	641761	4	TR	20	13	17	12	18	25	5	8	1	1					Good				50		1581
R9-460381-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				49		1562
R9-460382-00	641758	4	TR	18	4	16	13	19	10	5	3	1	1					Good				49		1503
R9-461458-00	642309	2	TR	18	10	20	11	17	19	1	6	1	1					Good				48		1785

YIELD	GAUGE LENGTH (G.L.)	PLASTIC STRAIN RATIO (r)	IMPACT TEST	(C)=5mm x 5mm	CARBON EQUIVALENT VALUE (CE)
(A)=0.2% PROOF STRESS	(A)=200mm (C)=80mm (E)=2"	(A)=r0 (C)=r45	(A)=10mm x 10mm	(D)=2.5mm x 10mm	(A)=C+Mn/8
(B)=LOWER YIELD STRESS	(B)=50mm (D)=5.657 So (F)=8"	(B)=r90 (D)=(r0+r90+2r45) / 4	(B)=7.5mm x 10mm	(E)=5mm x 10mm	(B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15
					(C)=C+Mn/8+Si/24 (D)=

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Atish Misra*
QC METALLURGIST

16 ga ms

POA 146, 267, 245,



New Zealand Steel Limited
Glenbrook, South Auckland
Postal: Private Bag 92121, Auckland, New Zealand
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(09) 235 8089 / 235 3535 Waiuku
Fax: (09) 375 8959

TEST CERTIFICATE

Ref: 5379/23650

CUSTOMER	Wilkinson	P50505DI002	SPECIFICATION	ASTMA1008 CS Type A	Reissued 22/8/2005																				
CUSTOMER O/N	90-21N-742		PRODUCT	CRA WIDE COIL	CERTIFICATE No TC116858																				
MILL O/N	486968		DIMENSIONS	0.033" x 48" x Coil	PAGE 1 of 1																				
					DATE 19 August 2005																				
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT										MECHANICAL TESTS (TEST SPECIFICATION - ASTMA370)													
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ()	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH	
		x100													x10000		x100	180°				G.L. =	HRB	()	(feet)
R9-466080-00	845423	6	TR	21	11	16	17	20	16	2	3	1	3					Good				50		2700	
R9-466081-00	845423	6	TR	21	11	16	17	20	16	2	3	1	3					Good				50		2700	
R9-466082-00	845253	6	1	21	10	12	28	30	15	2	3	1	3					Good				47		2651	
R9-466083-00	845253	6	1	21	10	12	28	30	15	2	3	1	3					Good				47		2651	

YIELD	GAUGE LENGTH (G.L.)	PLASTIC STRAIN RATIO (r)	IMPACT TEST	CARBON EQUIVALENT VALUE (CE)
(A)=0.2% PROOF STRESS	(A)=200mm (C)=80mm (E)=2"	(A)=r0 (C)=r45	(A)=5mm x 5mm (A)=10mm x 10mm (B)=7.5mm x 10mm	(A)=C+Mn/8 (B)=C+Mn/8+(Cr+V+Mo)/5+(Cu+Ni)/15
(B)=LOWER YIELD STRESS	(B)=50mm (D)=5.65? So (F)=8"	(B)=r90 (D)=(r0+r90+2r45)/4	(C)=2.5mm x 10mm (E)=5mm x 10mm	(C)=C+Mn/8+Si/24 (D)=

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED
WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED

Satish Misra
QC METALLURGIST

20 ga ~s

PO# 267,146,